



PRESS RELEASE

Flex Films launches all new High Barrier Metallized Polyester Film

Elizabethtown, KY, USA: 02 February 2018: Metallized Polyester Films are increasing in popularity for imparting high barrier properties to laminated flexible packaging structures. However, it has been often experienced that poor adhesion of metal with the base polyester film can result in laminate failure, thereby decreasing product performance.

There has been an increasing demand for cost-effective films with high metal adhesion for superior barrier applications in harsh environments. However, the solutions that are currently available in the market are limited and costly.

With this problem statement at hand, Flex Films (USA) Inc. has engineered FLEXMETPROTECT™ F-HMB film which is a High Barrier Metallized Polyester Film. The film is either untreated or corona treated on the other surface, while metallization is carried out on the specially treated composite surface imparting metal adhesion or bond strength of > 1200 gram-force/inch.

Film Structure

- Untreated/Treated Corona surface
- Transparent Base Film
- Specially Treated Composite Surface
- Metallization

FLEXMETPROTECT™ F-HMB

Superior Bond Performance

Material	Adhesion Value (gram/in)
Corona	150
Acrylic	200
Chemical	500
Urethane	600
HMB	1000

Improved Robustness in Laminations

Cycles	Normal METPET (Relative Transmittance)	New F-HMB (Relative Transmittance)
5	~0.5	~0.5
10	~1.5	~0.7
15	~2.5	~0.9
20	~3.5	~1.1
25	~4.5	~1.3

Improved Barrier Over Commodity METPET

MVTR (gram/m ² /day)	OTR (cc/m ² /day)
~0.2	~0.2
~0.5	~0.5
~1.0	~1.0
~1.5	~1.5
~2.0	~2.0

Flex Films launches all new High Barrier Metallized Polyester Film

Flex Films is the global film manufacturing arm of India's largest multinational flexible packaging materials and solution company Uflex Limited. All the film manufacturing plants of Uflex, i.e. in India, UAE, Poland, Egypt, Mexico and USA can supply FLEXMETPROTECT™ F-HMB Film.

Talking more about the new development, Dr. Steven J. Sargeant, GM, Technology at Flex Films (USA) Inc. said, **"The adhesion of metal on BOPET base film is the sum of chemical and mechanical adhesion. Our proprietary surface treatment on the base film allows increased levels of chelation or reaction with the metal being deposited, thereby resulting in a much better adhesion profile. The specialized surface treatment comprises materials with unique and enhanced properties thereby leading to much enhanced mechanical bonding. It took us almost 18 months to engineer this film."**

Explaining the benefits that the newly developed film brings to the converters, and elaborating upon its use, **Mr. Vijay Yadav, Business Head, Flex Films (USA) Inc. said, "The film offers class leading high adhesion to metal under most aggressive environmental conditions; demonstrates improved scuff, scratch and craze resistance thereby improving yields up to four percent and offering unparalleled robustness in processing and performance for converters; has OTR of 0.6 cc/m²/day at 23 degrees C & 0% RH and MVTR of 0.6 g/m²/day at 38 degrees C & 90% RH offering high barrier properties thereby bringing new concepts to the market; complies with EU and FDA regulations for food grade applications and happens to be cost effective. FLEXMETPROTECT™ F-HMB Film finds extensive use in Liquid Packaging, Stand Up Pouch Applications, Barrier layer in challenging applications like 'Bag in Box', Chemical Packaging, Pharma Packaging, Hot fill applications up to 80 degree C. among others. This film is available in 8 – 50 micron thickness range."**

Sharing his views about the potential of the new product, Mr. Anantshree Chaturvedi, Vice Chairman & CEO, Flex Films International – the global film manufacturing arm of Uflex Limited said, **"Flex Films is focusing on speciality substrates that add real value to the business of converters and that of their customers by enhancing the quality and profile of the resultant packaging. Our expansion strategy hereafter will be niche product driven and not commodity driven. FLEXMETPROTECT™ F-HMB is a technologically superior film with encouraging demand. If we talk about the US itself, the market for this specialized film is expected to be about 25% of the current metalized film market."**

Congratulating his engineers, Mr. Ashok Chaturvedi, Chairman & Managing Director, Uflex Limited said, **"FLEXMETPROTECT™ F-HMB is a classic example of value engineering that shall bring substantial benefits and cheer to the converting fraternity not only in the US but globally. This is Innovation to Create Value Added Differentiation."**

Flex Films is the Global Film Manufacturing Arm of India's Largest Multinational Flexible Packaging Materials and Solution Company Uflex.

About Uflex

Uflex is India's largest multinational flexible packaging materials and Solution Company and an emerging global player. Since its inception back in 1985, Uflex has grown from strength to strength to evolve as a truly Indian Multinational with consumers spread across the world. Uflex today has state-of-the-art packaging facilities at multiple locations in India with installed capacity of around 100,000 TPA and has packaging film manufacturing facilities in India, UAE, Mexico Egypt, Poland and USA with cumulative installed capacity in excess of 337,000 TPA.

All Uflex plants are accredited with ISO 9001, 14001, HACCP & BRC certifications. Uflex caters to markets spanning across the globe in over 140 countries like USA, Canada, South American countries, UK and other European Countries, Russia, South Africa, CIS, Asian and African nations. Integrated within its core business profile are allied businesses like Engineering, Cylinders, Holography and Chemicals which further give Uflex a superior edge above competition.

Uflex Limited is also a part of the D&B Global Database and winner of various prestigious national and international awards for its products' excellence. Uflex offers technologically superior packaging solutions for a wide variety of products such as snack foods, candy and confectionery, sugar, rice & other cereals, beverages, tea & coffee, dessert mixes, noodles, wheat flour, soaps and detergents, shampoos & conditioners, vegetable oil, spices, marinades & pastes, cheese & dairy products, frozen food, sea food, meat, anti-fog, pet food, pharmaceuticals, contraceptives, garden fertilizers and plant nutrients, motor oil and lubricants, automotive and engineering components etc.

Some of Uflex's clients on the global turf include P&G, PepsiCo; Tata Global; Mondelez, L' Oreal, Britannia, Haldiram's, Amul, Kimberly Clark, Ferro Rocher, Perfetti, GSK, Nestle, Agrotech Foods, Coca Cola, Wrigley, Johnson & Johnson among others.

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